

OPTICAL TRANSMISSION APPARATUS, OPTICAL AMPLIFIER, AND OPTICAL TRANSMISSION SYSTEM

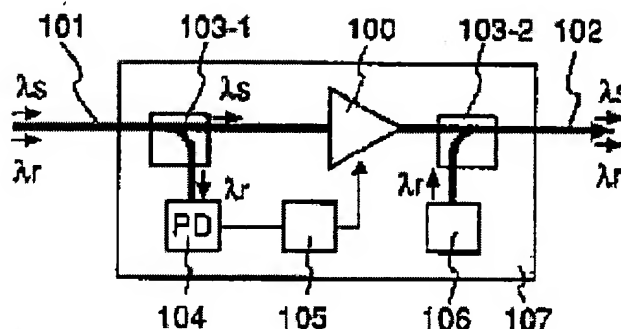
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Inventor: KIKUCHI NOBUHIKO
Applicant: HITACHI LTD
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- **International:** H01S3/10
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Abstract of JP2000312046

PROBLEM TO BE SOLVED: To suppress generation of a inter-wavelength gain deviation of an optical amplifier caused by a change in an optical fiber transmission path loss or the like.

SOLUTION: The operation of an optical amplifier 100 is controlled, based on a received strength of reference light by a means built in the optical transmission apparatus. For example, an output light (wavelength λ_r) from a reference light source 106 is transmitted being wavelength-multiplexed with a main signal (wavelength λ_s). An optical relay 100 controls the optical amplifier 100 on the basis of intensity information of the reference light. Monitor light of the relay 107 can be used also as the reference light. Even when a transmitter of wavelength-multiplex signal becomes faulty or a channel number is changed, the operational state or the input power of the optical relay can be kept constant, and an increase in an inter-wavelength gain difference can be suppressed.



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